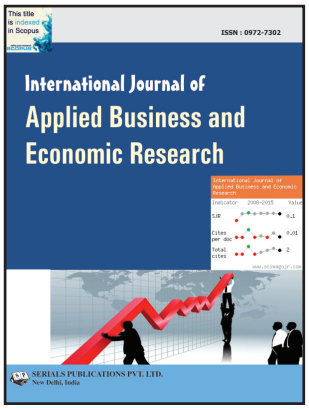

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The Survey of the Impact of Productivity on Business Intelligence (Case Study: Telecom Company of Saravan City)

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ABSTRACT

Population of this research includes all employees of Telecom Company is Boukan city. In Method of research simple random sampling used to determine the sample. The productivity questionnaire consisted of 21 items and the business intelligence questionnaire consisted of 42 items. The results of this study show that the business intelligence have positive correlated with Productivity aspects involves ability, clarity, support and assessment, but have not positive correlation with Motivational Dimension. Also in the relationship between business intelligence and productivity was found that there is a positive correlation between these variables.

Keywords: Productivity, business intelligence, information technology, business.

1. INTRODUCTION

Increasing the efficiency and growth is one of the basic ways to achieve higher yield, followed by welfare and well-being of individuals in society, therefore Identifying factors that influence the increase in efficiency has been one of the main goals of researchers and practitioners in this field (Taleghani et. al., 1390). Productivity is the result of a series of confronting variables that makes its brightness cloudy. Factors such as low level of quality affairs, the inefficiency of the structure, weak management systems, lack of meritocracy in management, lack of appropriate cultural contexts related to projects, productivity, job dissatisfaction, lack of job stability, managers and staff, lack of trust between managers and staff lack proper training and updates in the field of productivity, lack of long-range vision in management, lack of clear institution's mission, lack of work ethic in employees, fading employee participation system within the organization, not having the quality management system and other reasons, has decreased the quality of productivity as a complex variable (Sahay, 2005). However, most of the organizations today are realizing that data point is the life blood of the economy. Also the key to success in the information age is

to make decisions that consistently, better and faster outsmart in the competition. Bad business decisions or decisions based on incomplete information at least can cause the losses of millions of dollars to raise, and even cause the majority of the company's market share out of hand or lead to a bankruptcy. Today's business environment requires a kind of accountability that can achieve an awareness timely and also knows accurate business conditions. To be successful, businesses need quick and easy access to information about customers, their internal financial affairs, external market conditions and business activities properly. And this is the answer of the question that why today's organizations have found that information is the lifeblood of the digital economy (Hocevar & Jaklic, 2010). On the other hand, the business intelligence has direct relationship with business processes of an organization and the organizational value chain there. Business Intelligence has been associated with suppliers on one hand and on the other hand it also affects the operations and the activities of organizations associated with customers; so business intelligence enables organizations to consider the needs of all stakeholders in the system, by gaining insight, proper understanding and macro perspective (Elbashir et. al., 2008). Business Intelligence will help managers to accurately assess the performance of organizations in all sectors which are under their supervision, and to take the clearest and most accurate decisions in order to increase the productivity of an organization to increase the profit of the company. Business intelligence systems play a great role in the management of organizational performance of companies and finally to increase productivity. This is done by analyzing systems, information on the organization and use of the report in the form of graphs, charts and tables etc. (Hannula & Pirttimäki, 2003). The foundation of every business analysis and business development is data. Structured data is created by the organization and is usually stored in relational databases Such as customer data, operational data of the systems, enterprise resource management and accounting software data are the sensitive data and part of business development (Negash, 2004). Business Intelligence is a set of skills, technologies and application systems for gathering, storing, analyzing and providing efficient access to data warehouses and are used to help organizations to make more informed decisions. (Hocevar & Jaklic, 2010). Business Intelligence can be considered as one of the branches of Information Technology and can be understood as the techniques, tools and applications that use online transaction processing, online analytical processing, data warehouses, data mining and knowledge management, and aims to analyze and improve the quality of the processes and also to increase the organizational awareness (Devlin, 2010).

2. BUSINESS INTELLIGENCE

Business Intelligence is a broad concept that encompasses the entire organization to the right direction. The concept is concerned with acquiring, managing and analyzing massive amount of data about partners, products, services, customers and suppliers, activities and exchanges between them. In other words, business intelligence is an organized and systematic process by which an organization takes the internal and external information sources related to the activities and decisions of the business that they want to deal with. It also analyzes the information that they need from it. Business Intelligence is a comprehensive concept through which the entire organization tries to use these information systems to make decisions in a very effective way to gain information rapidly. By using this way, they can have competitive advantages. In such a concept, it is evident that at this level it should also encompass the organization's external processes (Olszak & Eweio, 2007).

3. PRODUCTIVITY

The start of using the word productivity in the economic culture goes back to two centuries ago. In many parts of the world, especially in industrialized countries, productivity is seen as a mindset and culture. In a sense, thinking in a way that causes improvement. Productivity was used for the first time in 1766 and in 1883 AD by koezini and Mr.liter defined productivity as the power to produce. Arly defined productivity in 1900 as the equipment productivity used to produce the output (Kargar and Farajpour, 1388). Productivity is the issue that has been discussed a few years ago and it is more than a century that is cosidered to be as an efficient and valuable index for development and growth and during this period the importance and credibility of it is increased. Especially in recent decades it has turned from a superficial and fleeting phenomenon to a problem with values at all levels of personal, social, organizational, production, industry and service. So today in many countries, "productivity" is considered as a culture and ideal. Productivity generally means optimum use of human and material resources to realize the objectives (Lotfi, 1389). Productivity is a Concept that shows the relationship of output to input of an individual, unit or an organization. For the definition of productivity, first we should be familiar with the concepts of efficiency and effectiveness. Efficiency is the ratio of output data corresponding to the optimal use of resources. Effectiveness means achieving the goals of the organization. By merging the two concepts, four modes are obtained that the fourth mode is the efficiency. Efficiency and effectiveness (productivity) is the mode that both the resources are used properly and organizational goals will be achieved too. Industry growth rate and its development in recent decades indicate that the country is in transition from a semi-industrial economy to an industrial economy. The production and productivity in the meantime can accelerate its growth and industrial development in the right direction which is based on the guiding principles. Therefore organizations have to know and to be familiar with the concepts and solutions to improve productivity. It should be stressed, therefore, it can be said that the degree of development of industries depends significantly on the optimum utilization of resources and production facilities. Therefore, efficiency and its continuous increase in organizations has special place. In this manner it is clear that continuous increase of productivity should be given more attention and importance in organizations for growth and development of industries. Studies show that giving attention to productivity has differenet forms in different organizations. However, due to organizational and managerial policies, it is natural that we must act in differently when facing different situations and it must be in accordance to existing situation.

4. HYPOTHESES

The main hypothesis: there is a significant relationship between business intelligence and productivity.

Sub-hypotheses:

- Business intelligence and abilities (knowledge and skills) of organizational productivity, have significant relationship.
- Business intelligence and sharpness (perceived or imagined role) of organizational productivity, have significant relationship.
- Business intelligence and help (corporate support) of organizational productivity, have significant relationship.

- Business intelligence and motivation (motivation or desire) of organizational productivity, have significant relationship.
- Business intelligence and appraisal (training and performance feedback) of organizational productivity, have significant relationship.

5. RESEARCH METHOD

This study is considered to be an applicable study from the nature and the aim of it. The population of this research is all employees of Telecom Saravan city which is considered to be over 48 people and are working in different parts of the company. Using simple random sampling method, 40 people were selected as the samples. The collective method to gather data is by using questionnaire. Hersey and Goldsmith questionnaire was used to measure the productivity and a new questionnaire which was made by the researcher, was used to measure the business intelligence with 42 questions. The reliability of the instrument using Cronbach alpha for productivity was measured to be 79.8% against 81.4% for the questionnaire of the business Intelligence.

Analyzing data

The results of studied demographics between groups are abbreviated in Table 23.1.

Table 23.1
Results of the descriptive survey of the studied participants

Age	*Abundance*	*Percentage of Abundance*	*Education*	*Abundance*	*Percentage of Abundance*
Under 25 years old	7	17%	Diploma and lower	6	15%
30-25 years	16	40%	Associate Degree	11	27%
35-31 years	11	28%	Bachelor	21	53%
Over 35 years	6	15%	Master and higher	2	5%
Total	40	100%	Total	100%	Total

The following results were obtained in the descriptive study of the variables Table 23.2.

Table 23.2
Descriptive survey of the studied variables

Variable	*Average*	*Middle*	*Mode*	*Standard deviation*	*Variance*
Abilities (knowledge and skills)	2.24	2.60	2.60	0.874	0.766
Resolution (perceived or imagined role)	2.05	2.00	1.50	0.609	0.371
Contributing (organizational support)	2.18	2.16	2.17	0.505	0.255
Motivation (motivation or desire)	2.01	2.08	1.83	0.412	0.170
Appraisal (training and performance feedback)	2.35	2.33	2.17	0.629	0.396
Organizational productivity	2.22	2.32	2.56	0.530	0.281
Business Intelligence	2.24	2.20	2.40	0.622	0.387

Based on the results of the evaluation of different dimensions of the efficiency, resolution has the highest average (2.35) and motivation has the lowest average (2.01). Then, to discuss hypotheses, It is essential to say that regression testing is used to check the hypotheses of the of study.

Table 23.3
Results of testing hypotheses of the study

Hypothesis	*Variable*	*The correlation coefficient (R)*	*The coefficient of determination (R2)*	*Modified coefficient of determination (-Ad2R)*	*Factor B*	*The standard rib Beta error*	*Beta coefficient*	*T-statistic*	*Significance level*
The first sub	Ability	0.369	0.136	0.134	0.10	0.013	0.36	7.727	0.00
The second sub	Clarity	0.421	0.177	0.175	0.39	0.044	0.42	9.020	0.00
The third sub	Help	0.251	0.063	0.061	0.25	0.050	0.25	5.050	0.00
The fourth sub	Motivation	0.0580	0.003	0.001	0.02	0.018	0.05	1.125	0.26
The fifth sub	Assessment	0.182	0.033	0.031	0.29	0.081	0.18	3.607	0.00
The main hypothesis	Efficiency	0.347	0.120	0.118	0.31	0.041	0.34	7.188	0.00

As you can see only the fourth sub-hypothesis that measures the relationship between business intelligence and the incentive, is not confirmed, so there is no significant relationship between these two variables. Other hypotheses are confirmed.

6. CONCLUSION

There is a significant positive relationship between the dimension of abilities (knowledge and skills) and business intelligence; and changes in the business intelligence of a single unit can change the capability variable by 10%. There is a significant positive relationship between the resolution dimension (perceived or imagined role) and business intelligence; and changes in business intelligence of a single unit can change the resolution variable by 39%. There is a significant positive relationship between the supports (organizational support) and business intelligence, and changes in the business intelligence of a single unit can change the help variable by 25%. The results of the study of the relationship between motivation (motivation or desire) and business intelligence showed that there is no significant relationship between the two variables and change in the independent variable doesn't have any effect on the dependent variable. There is a significant positive relationship between appraisal (training and performance feedback) and business intelligence; and changes in business intelligence assessment of a single unit can change the evaluation variable by 29%. Finally, after studying sub-hypotheses, we discussed the main hypothesis. The results of the study of the relationship between productivity and business intelligence indicate that there is a significant positive relationship between these two variables; and changes in the business intelligence assessment of a single variable can change the evaluation variable by 31%. Business intelligence has a major role in the development of business and also in the analysis of the performance of organizations and companies by analyzing the existing information in different systems using the report in the form of graphs, charts and different gauges. Business Intelligence helps the senior executives of organizations as a tool to accurately assess the performance of organizations in all sectors under their supervision to make the fastest and most accurate decisions in order to increase the productivity of their products. In today's business environment which is very dynamic and constantly changing, data analysis in business is the forefront of the struggle in the current competitive market and In this regard, business intelligence can have a direct impact on the

productivity of business organizations and also causes to grow of its abilities to carry on their mission for smarter decision-making at all levels of the business from corporate strategy to operational processes With business intelligence software, organizations can have more agile and more information-based decisions and therefore gain more competitive advantages.

Practical suggestions:

In order to increase the level of human resource productivity, the following cases are suggested:

1. Efforts to raise salaries and employee benefits.
2. Because administrative features including expertise, personal characteristics and ethical training are important, so it is recommended to train the staff to reinforce positive behaviors that affect employee performance, how to deal with subordinates, increased technical capabilities and etc.
3. Budget and equipment and facilities needed to perform the necessary support from management and the cooperation from other units must be provided in the companies.
4. Note the problems in employee performance, so that they can take action to improve it.
5. Empower the employees through trainings needed to form a strong team to perform better in the company's affairs and also to develop the abilities of the staff.
6. There must be a clear strategy for the future, identifying the direction of the goals for the staff and realistic strategy for them, therefore it will cause to increase the proper level of the human resources.

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